

We claim:

1. A process for the removal of sulfur compounds from a liquid hydrocarbon stream, which comprises:
 - 5 contacting a liquid hydrocarbon stream containing sulfur compounds with an aqueous extractive agent selected from the group consisting of chlorine containing compounds, cyanuric acid and its salts, alkali metal and alkaline earth metal hydroxides, and mixtures thereof, under conditions and for a period of time which is effective to reduce the sulfur content of the hydrocarbon stream.
- 10 2. The process according to claim 1, wherein said liquid hydrocarbon stream is selected from the group consisting of a hydrocarbon gas (NG) stream, a liquified natural gas (LNG) stream, natural gas liquids (NGL) and a liquid hydrocarbon stream.
3. The process according to claim 1, wherein said sulfur compounds are selected from the group consisting of hydrogen sulfide, carbon disulfide, carbonyl sulfide,
 - 15 mercaptans, thioethers, sulfides, disulfides, and mixtures thereof.
4. The process according to claim 1, wherein the chlorine containing compounds are selected from the group consisting of sodium hypochlorite, calcium hypochlorite, hypochlorous acid, salts and acid forms of mixed oxides of chlorine, and mixtures thereof.
5. The process according to claim 4, wherein the salt and acid forms of mixed
 - 20 oxides of chlorine are selected from the group consisting of chlorous acid, perchloric acid, chlorine dioxide, and mixtures thereof.
6. The process according to claim 1, wherein the cyanuric acid and its salts are selected from the group consisting of syn-triazine-2, 4, 6-triol, 1,3,5-triazine-2,4,6 (1H, 3H, 5H)-trione, syn-triazinetriol, 2,4,6-trihydroxy-1,3,5-triazine, trihydroxycyanidine, tricyanic
 - 25 acid, sodium trichloroisocyanuric acid, and mixtures thereof.

7. The process according to claim 1, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.
8. The process according to claim 7, wherein the transition metal catalysts are
5 iron or nickel salts.
9. The process according to claim 8, wherein the iron or nickel salts are nickelous sulfate or ferrous sulfate.
10. The process according to claim 1, wherein the liquid hydrocarbon stream is contacted in a continuous process by bubbling the hydrocarbon stream through a contactor
10 containing the aqueous solution of the reactive extractive agent.
11. The process according to claim 10, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.
12. The process according to claim 1, wherein the liquid hydrocarbon stream is
15 stirred and/or agitated in a contactor containing an aqueous solution of the reactive extractive agent.
13. The process according to claim 12, which includes contacting the hydrocarbon stream in the presence of a catalyst selected from the group consisting of transition metal oxidation catalysts and supported catalysts.
- 20 14. The process according to claim 1, wherein the sulfur content in the hydrocarbon stream is reduced to 5 ppm or less.